

WALC

Wireless Area Lighting Controller

Date: _____

Quantity: _____

Company: _____

Project: _____



The Wireless Area Lighting Controller (WALC) is a wireless control device that operates a switched line AC and 0-10V control to luminaires. It communicates to the Encelium X Wireless Manager over a wireless mesh network based on the Zigbee® standard.

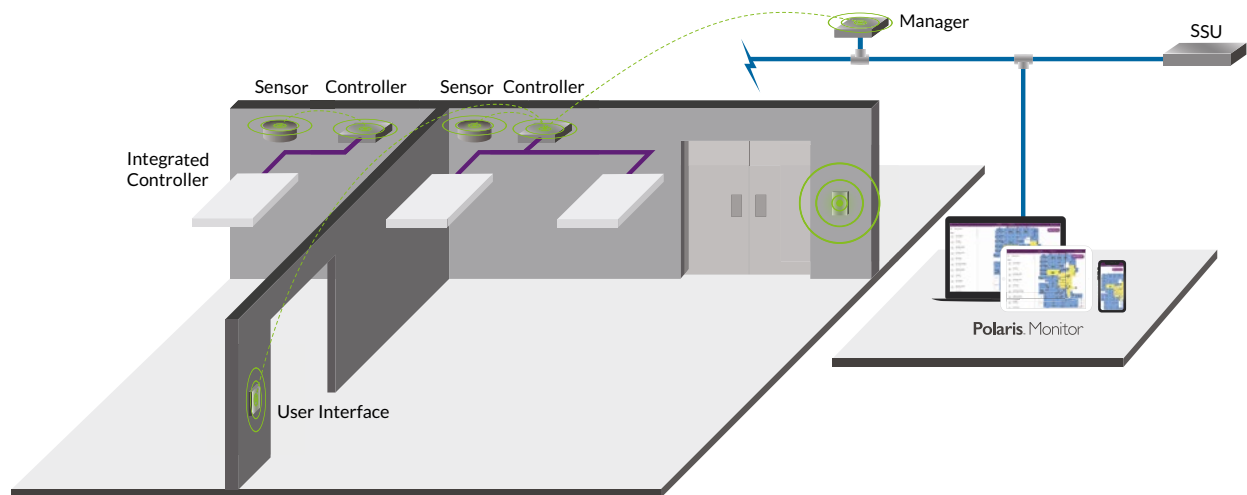
These individually addressable devices can switch an electrical load up to 20A or a wired zone of multiple luminaires ON or OFF via an integrated high-current relay while setting the zone's overall light level with a 0-10V dimming output wired to the luminaires' LED drivers or dimming ballasts. The WALC 0-10V dimming output is fully isolated and suitable for installation as either an NEC Class 2 or Class 1 wiring.

Key Features & Benefits

- Control for 0-10V dimmable and fixed output LED drivers/ballasts
- Provides hard-wire power to wallstations and sensors to enable wireless system designs without batteries
- Streamlines deployment with capability of powering low-voltage sensors with a built-in terminal block
- Enables wireless control for loads up to 20A
- Configurable high-end and low-end trim
- Mounts to the exterior of a junction box through a standard-size knockout
- Damp rated model available to suit environments with moderate degree of moisture such as basements and garages
- Works with:
 - Encelium X
 - Encelium Extend

Wireless System Overview

This illustration shows how each component is easily integrated into the Encelium X Networked Light Management System.



Specifications

SENSING AND CONTROL

Communication Port

- Port to connect GreenBus devices^{2,3}
- Terminal block for direct sensor connection

Control Options

- On/Off switching
- Single 0-10V dimming output (IEC 60929 Annex E). Capable of sinking 3 mA (this is equivalent to 30 typical dimming ballasts/drivers)¹

Polaris™ Software

- Actual readings of current and voltage used to depict consumption and energy savings

ELECTRICAL

Absolute Maximum Ratings

- 20A 120 – 347 VAC Ballast
- 20A 120 – 347 VAC Resistive
- 20A 120 – 347 VAC Tungsten
- 20A 120 – 347 VAC General Purpose
- 1.5 HP 120 – 277 VAC Motor

Radio Frequency

- 2.4 GHz

Frequency Range

- 100 ft (30 m) line of sight, 50 ft (15.2 m) through standard walls when mounted outside of the junction box

ENVIRONMENTAL

Operating Temperature

- -40° – 149°F (-40° – 65°C) – 10A
- -40° – 131°F (-40° – 55°C) – 20A

PHYSICAL

Dimensions (H x W x L)

- 1.6 x 2.7 x 3.5 inch (40 x 67.8 x 90 mm)

Mounting

- Suitable for luminaire or junction box mounting in 0.5 inch (Pg-7) trade size knockout – Ø 0.875 inch (22.2 mm)

WARRANTY

- For warranty details, refer to the full warranty documentation at www.encelium.com

CERTIFICATIONS & SAFETY

Approbations

- UL916 (Energy Management Equipment)
- UL924 cUL US Listed (Emergency Lighting Equipment)
- UL2043 Plenum Rated
- FCC Part 15/ICES-003
- RoHS Compliant



Footnotes:

¹ Maximum wire length: 100 ft (30 m), Class 1; 250 ft (76.2 m), Class 2.

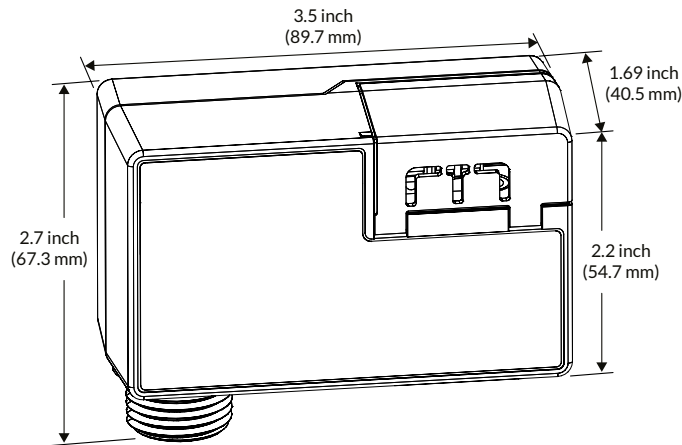
² Allows connection to all GreenBus devices identified in the Wiring Diagram.

³ Allows connection to selected Wired Wallstation models only.

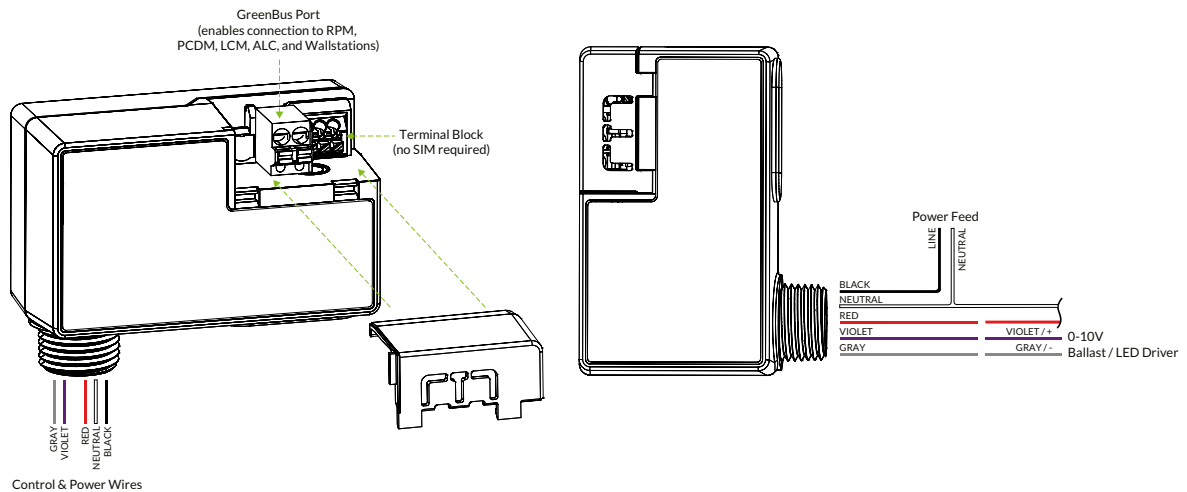
Ordering Information

Item Number	Ordering Code	Description	Communication Network	Modifiers
45585	EN-ALC-ZB-BK	Wireless Area Lighting Control Module	Zigbee	Indoor
45586	EN-ALC-ZB-BK-DR	Wireless Area Lighting Control Module	Zigbee	Damp Rated - DR

Dimensions



Wiring Diagrams



Wiring Information

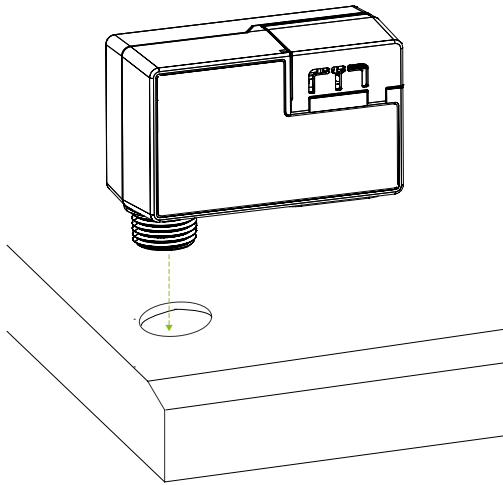
Function	Wire Color	Wire Gauge
Line In – Relay Contact	Black	7 inch (178 m)
Line Out – Relay Contact	Red	7 inch (178 m)
Neutral	White	7 inch (178 m)
Class 1 or Class 2 dimming, Low-Voltage, 0-10VDC, 30 mA maximum	Violet	7 inch (178 m)
Class 1 or Class 2 dimming, Low-Voltage, 0-10VDC, 30 mA maximum	Gray	7 inch (178 m)

Mounting Options

The mechanical construction allows for simple installation of the WALC to an available 0.5 inch (Pg-7) trade size knockout on the side or on top of a luminaire. GreenBus communication wiring is still accessible from the outside of the luminaire, while all necessary wiring to the electronic dimming ballast/LED driver is available on the inside.

For some installations, a junction box may be required. It is recommended to securely mount the WALC to the junction box using an available 0.5 inch (Pg-7) trade size knockout.

Luminaire Mounting



Junction Box Mounting

